

REMARKS

The Applicants have canceled claims 1, 8, and 17-20 without prejudice. The Applicants have also amended claims 2-5, 7, 9-11, 13, 16, 21, 23, 26, 29, and 32-33 and added new claims 34-35. As a result, claims 2-7, 9-16, and 21-35 are now pending in the application. The Applicants have amended claims 2-4, 7, 9-10, 13, 21, 23, 26, 29, and 32-33 for grammatical purposes and to amend claim dependencies. The amendments to claims 5, 11, and 16 and the addition of new claims 34-35 do not introduce new matter and are fully supported by the original disclosure. The Applicants have rewritten claims 5 and 11 in independent form to include the language recited in the base claims 1 and 8, respectively. The amendment to claim 16 is supported, for example, by similar language recited in claims 6 and 12 and by the specification on page 13, lines 10-12. New claims 34-35 are based upon claims 18 and 19, respectively.

Claim Rejections – 35 USC § 102

Claim 16 was rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yamany et al., “A System for Human Jaw Modeling Using Intra-Oral Images”. The Applicants have amended claim 16 and respectfully request allowance of this claim in its amended form.

The Applicants have amended claim 16 by adding language to specify that the shape-from-shading data is generated from **a determination of a solution to a brightness equation to yield the shape-from shading data that comprises a plurality of three-dimensional points.** This additional language is based upon similar language recited in claims 6 and 12, which were indicated as allowable by the Examiner. The Applicants submit that amended claim 16 is neither anticipated by nor rendered obvious in view of the cited art. Therefore, the Applicants respectfully request reconsideration and allowance of amended claim 16.

Claim Rejections – 35 USC § 103

Claims 1, 2, 4, 8, 10 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yamany et al., “3D Reconstruction of the Human Jaw From A Sequence of Images” (herein referred as Yamany A) in view of Yamany et al, “A System for Human Jaw Modeling Using

Intra-Oral Images" (herein referred as Yamany B). The Applicants have amended claims 5 and 11 and have cancelled claims 1, 8, and 17. In view of these amendments to the claims, the Applicants respectfully request reconsideration and allowance of claims 2, 4, and 10.

The Applicants have rewritten claim 5 in independent form to include the language recited in the base claim 1. The Examiner indicated that claim 5 would be allowable if rewritten in this form. Claims 2 and 4, as amended, depend directly from claim 5. The Applicants submit that claims 2 and 4 are not obvious in view of Yamany A and Yamany B, and respectfully request reconsideration and allowance of these claims.

The Applicants have rewritten claim 11 in independent form to include the language recited in the base claim 8. The Examiner indicated that claim 11 would be allowable if rewritten in this form. Claim 10, as amended, depends directly on claim 11. The Applicants submit that claim 10 is not obvious in view of Yamany A and Yamany B, and respectfully request reconsideration and allowance of this claim.

The Applicants have cancelled claims 1, 8, and 17. Therefore, the Applicants respectfully request withdrawal of the rejections to these claims.

Claims 3, 9 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yamany A in view of Yamany B as applied to claims 1, 8 and 17 above, and further in view of Rider et al. (U.S. Patent No. 6,192,329). The Applicants have amended claims 5 and 11 and have cancelled claim 18. In view of these amendments to the claims, the Applicants respectfully request reconsideration and allowance of claims 3 and 9.

Claim 3, as amended, depends directly on claim 5. Claim 9, as amended, depends directly on claim 11. The Applicants have rewritten each of claims 5 and 11 into a form indicated as allowable by the Examiner. As such, the Applicants submit that dependent claims 3 and 9 are not obvious in view of Yamany A, Yamany B, and Rider, and respectfully request reconsideration and allowance of these claims.

The Applicants have cancelled claim 18. Therefore, the Applicants respectfully request withdrawal of the rejection to this claim.

Allowable Subject Matter

Claims 14-15 and 21-33 were allowed.

Claims 5-7, 11-13 and 20 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicants have rewritten claims 5 and 11 in independent form to include the language recited in the base claims 1 and 8, respectively. The Applicants have amended claims 7, 13, 21, 23, 26, 29, and 32-33 for grammatical purposes and to amend claim dependencies. The Applicants respectfully request reconsideration and allowance of these claims.

New Claims

The Applicants have added new claims 34 and 35. These claims are based upon claims 18 and 19, respectively. Claims 34 and 35 depend directly from claim 33, which has been allowed by the Examiner. The Applicants respectfully request consideration and allowance of new claims 34 and 35.

Applicant : Aly A. Farag et al.
Serial No. : 09/842,587
Filed : April 26, 2001
Page : 16 of 16

Attorney's Docket No.: 17541-014001

CONCLUSION

The Applicants respectfully submit that the pending claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone the Applicants' attorney at 612-337-2586 to facilitate prosecution of the application.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: June 7, 2004



Raymond R. Berdie
Reg. No. 50,769

Fish & Richardson P.C., P.A.
60 South Sixth Street
Suite 3300
Minneapolis, MN 55402
Telephone: (612) 335-5070
Facsimile: (612) 288-9696